NEC-2090-US   09/740,790   04150011AA
                                    Reply to office action mailed 03/02/2004

The following is a complete listing of all claims in the application, with an indication of the status of each:

Listing of claims:

1   1 (Currently Amended). An audio playback/recording apparatus comprising:

2   an audio input processing section, which receives analog audio data

3   from an input apparatus connected thereto, and converts said analog audio

4   data to digital audio data and outputs said digital audio data therefrom;

5   ~~a plurality of decompression firmwares stored in ROM;~~

6   a playback/recording processing section ~~having a compression section~~

7   which compresses said digital audio data output from said audio input

8   processing section and stores ~~into a RAM~~ said compressed digital audio data

9   in a RAM, and further ~~and attribution data indicating a type of a compression~~

10   ~~of said compressed digital audio data, and having an expansion section which~~

11   decompresses said compressed digital audio data stored in said RAM ~~by using~~

12   ~~a decompression firmware selected from among said plurality of~~

13   ~~decompression firmwares based on the attribution data~~;

14   an audio output processing section, which ~~receives decompressed~~

15   ~~digital audio data,~~ converts ~~said decompressed~~ digital audio data output from

16   said audio input processing section or digital audio data expanded by said

17   playback/recording processing section to analog audio data, and outputs said

18   analog audio data to an output apparatus which is connected to said audio

19   output processing section;

20   an external recording circuit section, which records compressed digital

21   audio data stored in said RAM into an external recording medium, and reads

22   out compressed digital audio data from said external recording medium, and

23   stores said readout data into said RAM;

24   a general-purpose interface section which includes which transfers

25   digital audio data and authorization data to an external apparatus and receives

26   digital audio data and authorization data thereof from an external apparatus;

27   a protection processing section which performs protection processing

28   of said digital audio data, said protection processing section having an

29   encryption section which encrypts said digital audio data, a decryption section

30   which decrypts encrypted digital audio data, an authorization data generation

31   section which generates authorization data including an individual identifier

32   and a decryption key that are sent to said external apparatus connected to said

33   general-purpose interface section, an authorization data verification section

34   which compares said individual identifier included in said authorization data

35   from the external apparatus connected to said general-purpose interface

36   section with an individual identifier list stored in a ROM and checks

37   properness of a transmitting party;

38   a ROM into which software used in processing in said

39   playback/recording processing section and said protection processing section

40   are stored as firmware, and said individual identifier and said decryption key

41   used by said protection processing section are stored;

42   a RAM which stores the compressed digital audio data output from

43   said compressed digital audio data or read out from said external recording

44   circuit section or input to said general-purpose interface circuit section, and

45   software read out from said ROM;

46   an expanded RAM into which digital audio data are stored in a case in

47   which it is not possible to store digital audio data in said RAM; and

48   a controller which controls the audio input processing section, the

49   playback/recording processing section, the audio output section, the external

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50   recording circuit section, the general-purpose interface circuit section, the

51   protection processing section, the ROM, the RAM, and the expanded RAM,

52   and selects appropriate processing files to process said digital audio data from

53   among files stored in the ROM, and stores said selected files in the RAM,

54   before said playback/recording processing section performs compression,

55   expansion, encryption, and decryption of the digital audio data.

Claims 2-5. Canceled

1   Claim 6 (currently amended). An audio playback/recording apparatus

2   according to claim 1 5, wherein said further comprising an authorization data

3   writing section which writes said authorization data within a header

4   information section of said digital audio data.

Claim 7. Canceled

1   Claim 8 (new). An audio playback/recording apparatus according to claim 1

2   wherein said interfaces of said general-purpose interface circuit section are

3   selected from the group consisting of USB, IEEE1394, wireless LAN, and

4   Home RF.

1   Claim 9 (new). A playback/recording method of digital audio data using an

2   audio playback/recording apparatus having a playback/recording processing

3   section, an audio output processing section, an external recording circuit

4   section, a general-purpose interface circuit section, a protection processing

5   section, a ROM, a RAM, and an expanded RAM, said method comprising:

6   A) in a case in which input data input to the audio playback/recording

7   apparatus are playbacked and recorded on an external recording medium,

8   said audio input processing section receives analog audio data from an

9   input apparatus connected thereto and converts said analog audio data to

10   digital audio data and outputs said digital audio data to the audio output

11   processing section and playback/recording processing section,

12   said audio output processing section converts said received digital

13   audio data to analog audio data and playbacks said converted analog audio

14   data,

15   said playback/recording processing section compresses said digital

16   audio data and stores said compressed digital audio data in said RAM, and

17   after said audio output processing section playbacks said digital audio

18   data, said external recording circuit section records compressed digital audio

19   data stored in said RAM into an external recording medium;

20   B) in a case in which input data input to the audio playback/recording

21   apparatus are recorded on an external recording medium,

22   said audio input processing section receives analog audio data from an

23   input apparatus connected thereto and converts said analog data audio data to

24   digital audio data and outputs said digital audio data to the playback/recording

25   processing section,

26   said playback/recording processing section compresses said digital

27   audio data and stores said compressed digital audio data in said RAM, and

28   said external recording circuit section records compressed digital audio

29   data stored in said RAM on the external recording medium;

30   C) in a case in which recorded data on an external recording medium

31   are playbacked,

32   said external recording circuit section reads out compressed digital

33   audio data from the external recording medium and stores said readout data

34   into said RAM,

35   said playback/recording processing section decompresses said

36   compressed digital audio data stored in said RAM, and

37   said audio output processing section converts said decompressed

38   digital audio data to analog audio data and outputs said converted analog data

39   to an output apparatus and playbacks said analog audio data;

40   D) in a case in which recorded data on an external recording medium

41   are transferred to an external apparatus,

42   said external recording circuit section reads out compressed digital

43   audio data from the external recording medium and stores said readout data

44   into said RAM,

45   said protection processing section generates authorization data

46   including an individual identifier and a decryption key so as to encrypt data

47   and encrypts said compressed digital audio data stored in said RAM, said

48   general-purpose interface circuit section outputs said authorization data to said

49   external apparatus, after that, outputs encrypted compressed digital audio data

50   to said external apparatus; and

51   E) in a case in which input data received from an external apparatus

52   are recorded on an external recording medium,

53   said general-purpose interface circuit section receives authorization

54   data from the external apparatus,

55   said protection processing section compares said individual identifier

56   included in said authorization data from the external apparatus with an

57   individual identifier list stored in the ROM and checks a properness of a

58   transmitting party,

59   said general-purpose interface circuit section receives encrypted

60   compressed digital audio data from the external apparatus and stores them in

61   the RAM,

62   said protection processing section decrypts encrypted compressed

63 digital audio data stored in the RAM by using the decryption key included in

64 the authorization data, and

65   said external recording circuit section records the compressed digital

66 audio data stored in the RAM into the external recording medium.